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## PATENT ABSTRACTS OF JAPAN

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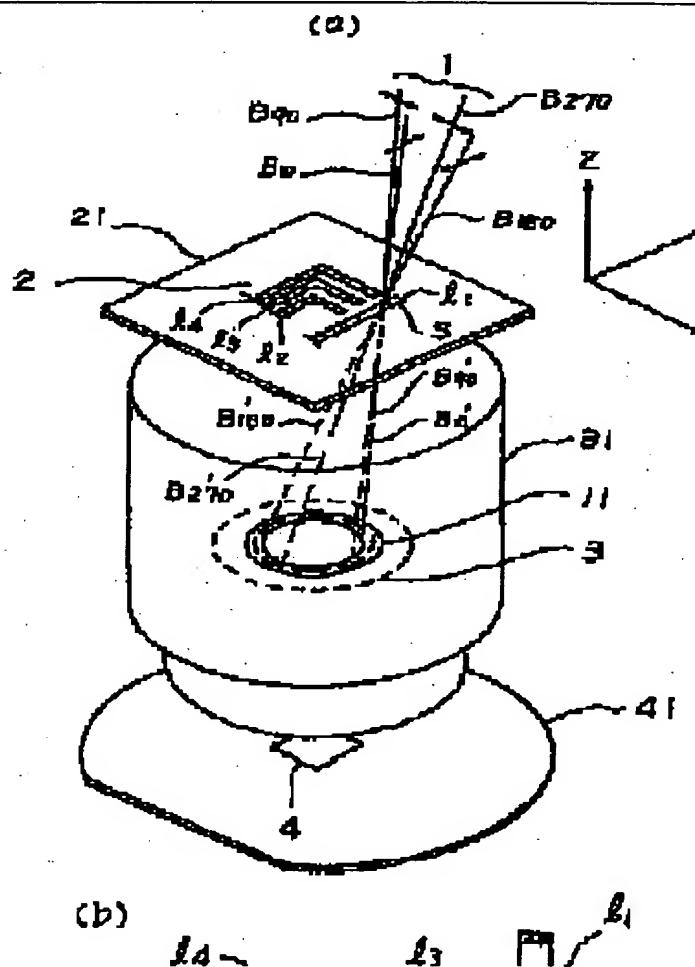
<p>(30) Priority: 29.10.93 JP 05271596</p> <p>(43) Date of application publication: 14.07.95</p> <p>(84) Designated contracting states:</p>	<p>(71) Applicant: HITACHI LTD</p> <p>(72) Inventor: OSHIDA YOSHITADA FUKUDA KENICHIRO NAKAYAMA YASUHIRO YOSHIDA MINORU WATANABE MASAHIRO</p> <p>(74) Representative:</p>
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(54) METHOD AND APPARATUS FOR EXPOSING PATTERN, MASK USED THEREFOR AND SEMICONDUCTOR INTEGRATED CIRCUIT FORMED BY USING THE SAME

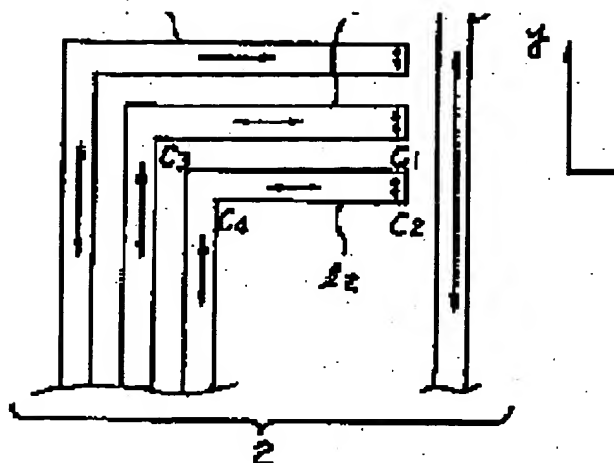
(57) Abstract:

PURPOSE: To realize a resolution equivalent to a phase shifting method or more without generating a pattern impossible to design by using a pattern depending polarization mask for applying polarization characteristics responsive to a direction of the pattern on the mask to an illumination light passed through the pattern.

CONSTITUTION: B0 B90, B180, B270 of partial lights of an illumination light respectively have linear polarizations. and emit a ring



bandlike band like an illumination light 11 on a pupil of a reducing lens 31 of a projecting optical system when there is no mask 2. Patterns 11, 12, 13, 14 directed in directions (x) and (y) are, for example, formed on the mask 2 by lithography, and polarization characteristics responsive to the directions of the patterns are applied to a light emitted to and passed through the patterns. Thus, the pattern having much excellent resolution as compared with conventional resolution pattern can be exposed by using a projecting optical system of a conventional exposure apparatus as it is.



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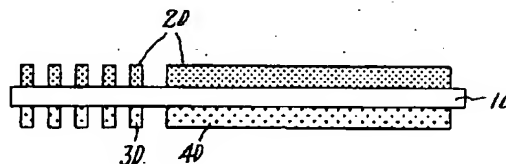
## KOREAN PATENT ABSTRACTS

(11) Publication number: **00246363 · B1**(44) Date of publication of specification: **06.12.99**(21) Application number: **970061441**(71) Applicant: **HYUNDAI MICRO ELECTRONICS CO., LTD.**(22) Date of filing: **20.11.97**(72) Inventor: **YOON, JIN YEONG**(51) Int. Cl. **H01L 21/027**(54) **POLARIZING MASK**

## (57) Abstract:

**PURPOSE:** A polarizing mask is provided to improve a characteristic of a semiconductor device by preventing an interference effect between a light transmitting a mask and an adjacent light.

**CONSTITUTION:** A polarizing mask comprises a polarizing plate(10), an upper polarizing pattern(20), and a lower polarizing pattern(30,40). The polarizing plate(10) polarizes an incident light at 45 degrees. The upper polarizing pattern(20) has a predetermined structure formed on an upper portion of the polarizing plate(10) in order to intercept a received light. The lower polarizing pattern(30,40) is formed between each upper polarizing pattern(20). The lower polarizing pattern(30,40) polarizes the light transmitting the polarizing plate(10) to a predetermined angle.



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